Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

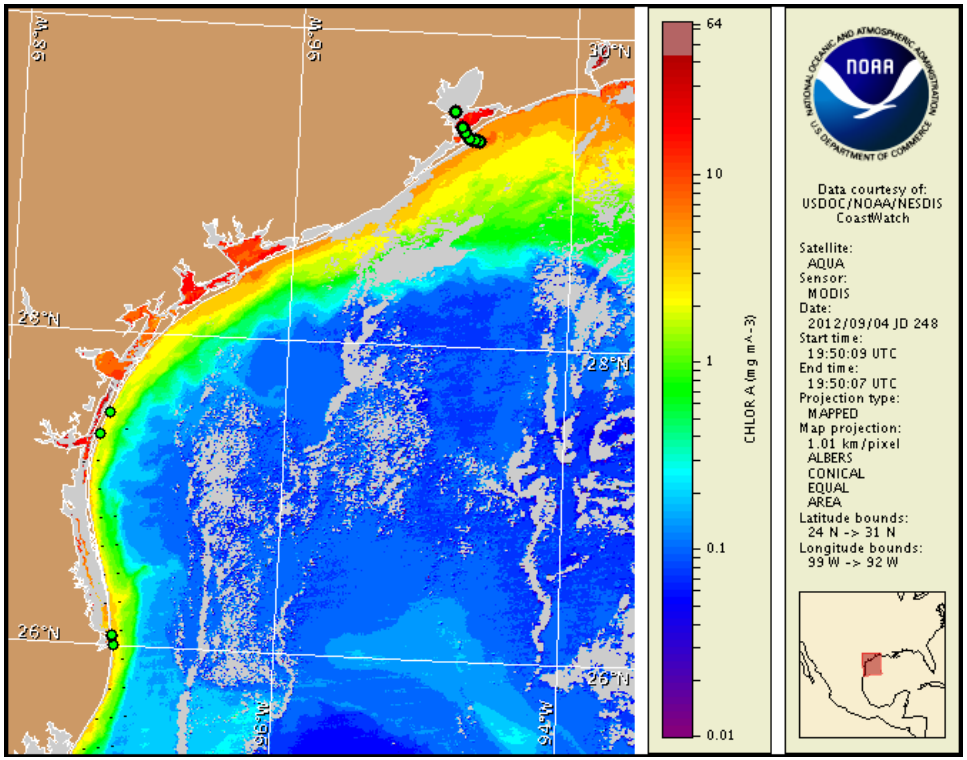
Thursday, 06 September 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, September 4, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from August 27 to September 4 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

A patchy harmful algal bloom of Karenia brevis (commonly known as Texas red tide) is present along the Texas coast, in the Galveston region. Patchy low respiratory impacts are possible in the Galveston region today, Friday and Sunday. Patchy very low respiratory impacts are possible on Saturday. No additional respiratory impacts are expected at the coast in Texas today through Sunday, September 9. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Analysis

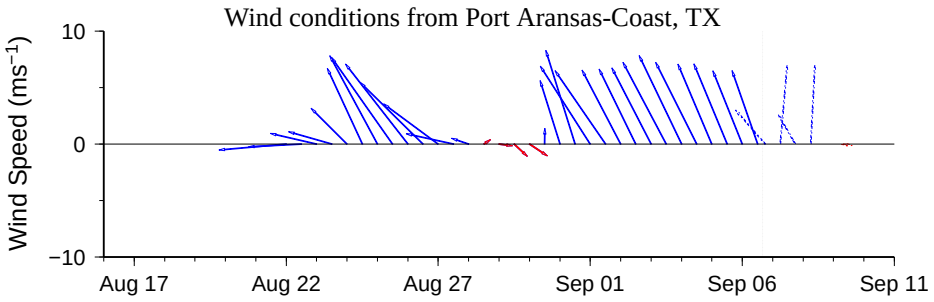
In the Galveston region, the harmful algal bloom of *Karenia brevis* may no longer be present. Samples collected on Tuesday (9/4) indicate that *K. brevis* is not present at the eight locations where 'low a' concentrations were previously identified within the lower Galveston Bay and Bolivar Roads Pass (TPWD; 8/28).

The Imaging FlowCytobot, located at the University of Texas Marine Science Institute Pier in Port Aransas, continues to indicate background to 'very low a' concentrations of *K. brevis* (TAMU; 9/4).

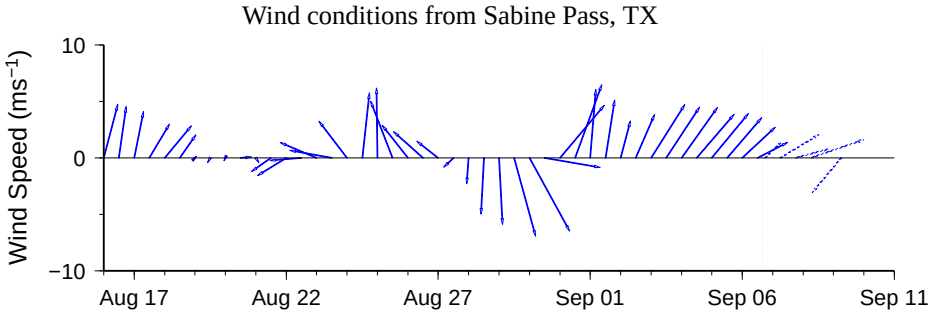
Recent MODIS imagery (9/4; shown left) is partially obscured by clouds along- and off-shore the Texas coast from the Galveston Island to Matagorda Island regions, limiting analysis. A patch of elevated to high chlorophyll (7 to >10 μg/L) is visible extending approximately 14 km east from the mouth of Bolivar Roads Pass. A band of elevated chlorophyll (2-8 μg/L) is visible stretching along- and offshore from Sabine Pass to south of the Rio Grande. Elevated chlorophyll is not necessarily indicative of the presence of *K. brevis* and could also be due to the resuspension of benthic chlorophyll and sediments along the coast. In situ sampling is necessary to confirm the presence of *K. brevis*.

Forecast models based on predicted near-surface currents indicate a maximum bloom transport from coastal sample locations of 80 km north from the Galveston region and a potential transport of 70 km north from the Port Aransas region from September 4-9.

Kavanaugh, Davis



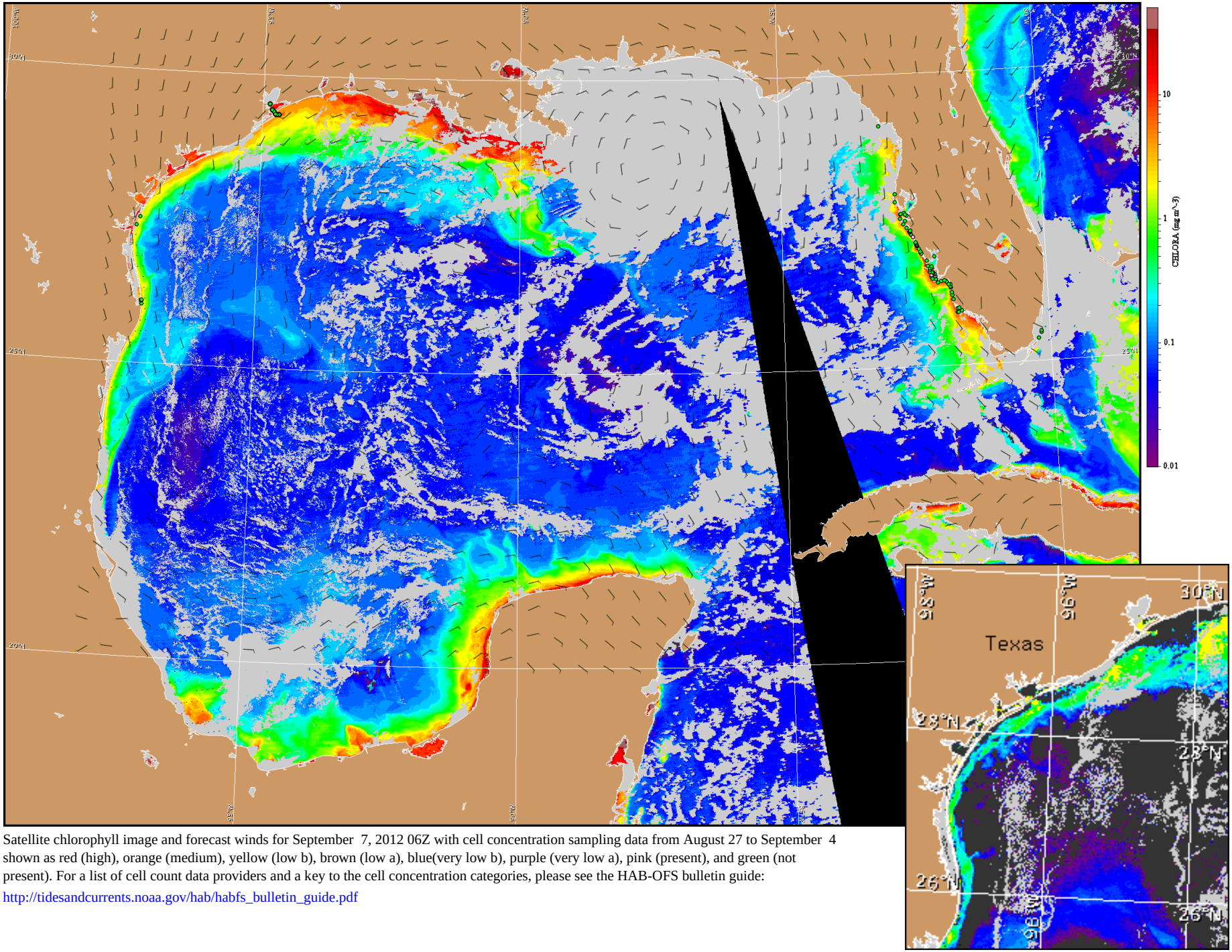
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

Galveston: West winds (5-10 kn, 3-5 m/s) today becoming south to southwest winds (5-10 kn) this afternoon through Friday night. West winds (5-10 kn) Saturday becoming north winds (10-20 kn, 5-10 m/s) Saturday afternoon. Northeast winds (10-20 kn) Sunday becoming east winds (10 kn, 5 m/s) Sunday night.

Port Aransas: South to southwest winds (5-15 kn, 3-8 m/s) today through Friday afternoon. Southwest to west winds (5-10 kn) Saturday becoming northeast to east winds (5-15 kn) in the afternoon. Northeast winds (10-20 kn) Sunday becoming east winds (10-15 kn) Sunday night.



Satellite chlorophyll image and forecast winds for September 7, 2012 06Z with cell concentration sampling data from August 27 to September 4 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).